



FIGURE 2A

Comparison of AMP Deaminase Polypeptides From Corn, Rice, Soybean, and Wheat (SEQ ID Nos:14, 16, 18, and 20) and *Arabidopsis thaliana*

```

SEQ ID NO:14      -----EPTADEIE
SEQ ID NO:16      MPKTMPSLLTKWND--IGSDPLPGKASQNGDTKVPSTNMIRSQATSLHGAQHPVAAIDILRKEPEHETFSRINITAVETPSPDEIE
SEQ ID NO:18      LDTTYLHANGTGGEKIPFEPLPNHVNANGEQMAITPS-MIRSHSVSGDLHGVPDPIADILRKEPEHETFTRLRITPLEAPSPDEIE
SEQ ID NO:20      -----
gi 7484807        M-----ICL-----EVPTSDEVE

SEQ ID NO:14      VFKILXKCLELRDSYLFREEVAPWEKEVINDDPCTPKPNPNPFTYVPEPKSEHVQTVGVHVVADKCTESIYPVADATFTFFDTHLYIL
SEQ ID NO:16      AYKVLQKCLELREKYMFREEVAPWEKEIITDPPSTPKPNPNPFYYEQQTKEHHFEMVDGVHVPYPNKDAKERIYPVADATFTFFDTHMYIL
SEQ ID NO:18      AYVVLQECLEMRKRYVFREEVAPWDKEVISDPSTPKPNPDPLYPEGNSDHYFEMQDGVIRVYVDRDAKEELFPVADATFTFFDTHLHLL
SEQ ID NO:20      -----R-C-----
gi 7484807        AYKCLQECLELRKRYVFOETVAPWEKEVISDPSTPKPNTEPFAHYPOGKSDHCFEMQDGVVHVVFANKDAKEDLFPVADATFTFFDTHHVL

SEQ ID NO:14      RVTAAGNTRTVCHNRNLNLEHKFKFHLMLNADREFLAQKTAHPHDFYNVRKVDTHVHVSACMNQKHLRLRFIKSKLRKEPDEVVIFRDGTY
SEQ ID NO:16      RVLAAAGDIRTVCKRLNLLLEQKFNHLMVNADRELLAQKAAPHRDFYNVRKVDTHVHVSACMNQKHLRLRFIKSKLRKEPDEVVIFRDGTY
SEQ ID NO:18      RVIAAGNIRTLCHRLNLLLEQKFNHLMVNADREFLAQKSAPHRDFYNVRKVDTHVHVSACMNQKHLRLRFIKSKLRKEPDEVVIFRDGTY
SEQ ID NO:20      -----KF-----
gi 7484807        KVIAAGNIRTLCHRLNLLLEQKFNHLMVNADKEFLAQKSAPHRDFYNVRKVDTHVHVSACMNQKHLRLRFIKSKLRKEPDEVVIFRDGTY

SEQ ID NO:14      MTLKEVFESLDLTGYDLNVDLLDVHADKSTFHRFDKFNLYNPNPCGQSRLREIFLQKQDNLIQGRFLAELTKQVFSDSLASKYQMAEYRISI
SEQ ID NO:16      LTLKEVFESLDLTGYDLNVDLLDVHADKSTFHRFDKFNLYNPNPCGQSRLREIFLQKQDNLIQGRFLAELTKQVFSDSLASKYQMAEYRISI
SEQ ID NO:18      LTLKEVFESLDLTGYDLNVDLLDVHADKSTFHRFDKFNLYNPNPCGQSRLREIFLQKQDNLIQGRFLGELTKQVFSDSLASKYQMAEYRISI
SEQ ID NO:20      -----FSDLNASKYQMAEYRISI
gi 7484807        LTLKEVFESLDLTGYDLNVDLLDVHADKSTFHRFDKFNLYNPNPCGQSRLREIFLQKQDNLIQGRFLGELTKQVFSDSLASKYQMAEYRISI

SEQ ID NO:14      YGRKQSEWDQLASWIVNNELHSGNVVWLVIQIPRLYNYKEMGIVTSFQNLNLDNIFVPLFEVTDIPASHPQLHVFLKQVVGGLDLVDDESKP
SEQ ID NO:16      YGRKKSEWDQMASWIVNNELYSENVVWLVIQIPRIYNYREMGTINSFQNLNLDNIFLPLFEVTVDPASHPQLHVFLKQVVGGLDLVDDESKP
SEQ ID NO:18      YGRKQSEWDQLASWIVNNELYSENVVWLVIQIPRLYNYKEMGIVTSFQNLNLDNIFIPLFVTVNPDSPHQLHVFLKQVVGGLDLVDDESKP
SEQ ID NO:20      YGRKQSEWDQLASWIVNNELYSENVVWLVIQIPRLYNYQQMGIIVTSFQNLNLDNIFLPLFEVTDIPASHPQLHVFLKQVVGGLDLVDDESKP
gi 7484807        YGRKMSEWDQLASWIVNNELYSENVVWLVIQIPRLYNYKDMGIIVTSFQNLNLDNIFIPLFVTVNPDSPHQLHVFLKQVVGGLDLVDDESKP
```

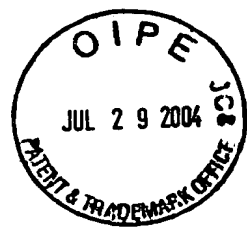


FIGURE 2B

SEQ ID NO:14	ERRPTKHMPTPEQWTVNFNPAFSYAYVYCYANLYTLNKLRESKGWTTIKFRPHAGEAGVDHLAATFLCHNISHGINLRKSPVLQYLYY
SEQ ID NO:16	ERRPTKHMPTPEQWTVNFNPAFSYAYVYCYANLYTLNKLRESKGWTTIKLRPHCGEAGDIDHLAAAFLTSHNIAHGVNLKSPVLQYLYY
SEQ ID NO:18	ERRPTKHMPTPEQWTVNFNPAFSYAYVYCYANLYTLNKLRESKGWTTIKFRPHSGEAGDIDHLAATFLTAHNIAGINLRKSPVLQYLYY
SEQ ID NO:20	ERRPTKHMPTPEQWTVNFNPAFSYAYVYCYANLYTLNKLRESKGWTTIKFRPHAGEAGVDHLAATFLCHSISHGINLRKSPVLQYLYY
gi 7484807	ERRPTKHMPTPAQWTFNAFPAFSYAYVYCYANLYVNLKLRESKGWTTITLPRHSGEAGDIDHLAATFLTCHSIAHGINLRKSPVLQYLYY
SEQ ID NO:14	LGQIGLAMSPLSNNSLFLDYHRNPFTFFQRGGLNVSLSTDDPLQIHLTKPEPLVEEYSIAASLWKLSSCDLCEIARNSVYQSGFSHALKAH
SEQ ID NO:16	LAQIGLAMSPLSNNSLFLDYHRNPFTFFLRLGNVSLSTDDPLQIHLTKPEPLVEEYSIAASLWKLSSCDLCEIARNSVYQSGFSHRLKSH
SEQ ID NO:18	LAQIGLAMSPLSNNSLFLDYHRNPFPFPLRLGNVSLSTDDPLQIHLTKPEPLVEEY-----
SEQ ID NO:20	LGQIGLAMSPLSNNSLFLDYHRNPFPFQRGGLNVSLSTDDPLQIHLTKPEPLVEEYSIAASLWKLSSCDLCEIARNSVYQSGFSHALKAH
gi 7484807	LAQIGLAMSPLSNNSLFLDYHRNPFPFPLRLGNVSLSTDDPLQIHLTKPEPLVEEYSIAASVWKLSSCDLCEIARNSVYQSGFSHALKSH
SEQ ID NO:14	WIGKNYFKRGPAGNDIHRNTNVPHIRVQFREMWRNEMKLVSDNEILIPDELDL
SEQ ID NO:16	WIGRNYKRGHDGNDIHQTNVPHIRIEFRHTIWKEEMELIHLRN-VDIPEEIDR
SEQ ID NO:18	-----
SEQ ID NO:20	WIGKNYKRGPSGNDIHRNTNVPITIRIEFRDLIWRDEMQLVYLNNVIL-PDEVDQ
gi 7484807	WIGKDYKRGPDGNDIHKTNPVPHIRVEFRDVTWNE-----IYL---FFTQVNFSL



FIGURE 3A

Comparison of Adenosine Deaminase Polypeptides From Soybean (SEQ ID NO:22) and *E. coli*

SEQ ID NO:22 gi 2506342	MCGENMKQFLKELPKCEHHIHIEGSLSPALLFELAKTNNIALPDSAADASFQSPQELSRYERFTSLNDFLHYYYIGMSVLINPADYESL MIDT-----TLPLTDIHRHLDGNIRPQTILELGRQYNISLPAQSLETLIPHVQVIANE----PDLVSFLTCLDWGVKVLASLDACRRV
SEQ ID NO:22 gi 2506342	AYEYLTKANRDGVHHAEIFFDPPQ-AHTERGIAYNTVVEGLSAGLKRAEKDFGITSKLILCFLRHLSEAEDAKTTYQEA VSLGHFSNGTVA AFENIEDAARHGLHYVELRFS PGYMAHAHQLPVAGVVEAVIDGVREGCRTFGVQAKLIGIMSRTFGEAACQQELEA--FLAH--RDQITA
SEQ ID NO:22 gi 2506342	IGLDSSEVGFPPPEIFREIYESAETKGIHRTAHAGEEGDTSYISRALDICKVERIDHGIRLAEDENLLKRVAEQGTMLTVCPLSNVRLRCV LDLAGDELGFPGLSLSHFNRRARDAGWHITVHAGEAAGPESIWQATRELGAERIGHGVKAIEDRALMDFLAEQQIGIESCLTSNIQTSTV
SEQ ID NO:22 gi 2506342	ENVGQLPIRKFLDGGIKFSINSDDPAYFGGYILDNYLAVQEAFAFGLNLKEWKYIATSAIEGSWCDDDERKAVLLSKVDACAKKYEALL AELAAHPLKTFLEHGIRASINTDDPGVQGVDDIIHEYTVAAPAAGLSREQIRQAQINGLEMAFLSAEKKRALREKVAA-----K